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Case Report

Excision of vallecular cyst in an adult: A case report

Yetişkin hastada vallecular kist eksizyonu: Vaka sunumu

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ABSTRACT

Vallecular cysts are rare benign laryngeal lesions that may remain asymptomatic in adults but can cause dysphonia, dysphagia, and airway compromise when enlarged. In this study, it is aimed to evaluate the clinical features and surgical management of a large adult vallecular cyst.

We retrospectively analyzed the clinical, laboratory, and imaging data of a 64-year-old female patient who presented with globus sensation, intermittent dysphonia, and persistent pharyngeal irritation. Endoscopic laryngeal examination and computed tomography (CT) demonstrated a well-circumscribed 3×2 cm cystic lesion arising from the lingual surface of the epiglottis. Suspension laryngoscopy was performed under general anesthesia, and the cyst was completely excised using a transoral submucosal microdissection technique.

Total excision was achieved without intraoperative or postoperative complications. Histopathology confirmed a benign laryngeal epithelial cyst consistent with a vallecular cyst. Symptoms resolved immediately, and no early recurrence was observed during follow-up.

Complete transoral excision with submucosal microdissection is a safe and effective treatment for large vallecular cysts in adults. Total cyst wall removal is critical to prevent recurrence and ensure full symptomatic recovery.

Keywords: Vallecular cyst; suspension laryngoscopy; submucosal microdissection; laryngeal cyst.

ÖZET

Vallekular kistler, erişkinlerde asemptomatik seyredebilen ancak büyüdüklerinde disfoni, disfaji ve hava yolu kompromisine yol açabilen nadir benign laringeal lezyonlardır. Bu çalışmada, erişkin bir hastada saptanan büyük vallekular kistin klinik özellikleri ve cerrahi tedavisinin literatür eşliğinde değerlendirilmesi amaçlanmıştır.

Globus hissi, aralıklı ses kısıklığı ve inatçı faringeal irritasyon şikayetiyle başvuran 64 yaşında kadın hastanın klinik, laboratuvar ve görüntüleme verileri retrospektif olarak incelendi. Endoskopik laringeal muayene ve bilgisayarlı tomografi (BT), epiglotun lingual yüzeyinden kaynaklanan, iyi sınırlı 3×2 cm'lik kistik bir lezyon ortaya koydu. Genel anestezi altında süspansiyon laringoskopi uygulandı ve kist, transoral submukozal mikrodiseksiyon tekniğiyle tamamen eksize edildi.

İntraoperatif veya postoperatif komplikasyon gelişmeksizin total eksizyon sağlandı. Histopatoloji, vallekular kist ile uyumlu benign laringeal epitelyal kisti doğruladı. Semptomlar ameliyat sonrasında hemen geriledi ve takip sürecinde erken nüks gözlemlenmedi.

Transoral submukozal mikrodiseksiyon ile tam eksizyon, erişkinlerde büyük vallekular kistlerin tedavisinde güvenli ve etkili bir yöntemdir. Nüksü önlemek ve tam semptomatik iyileşmeyi sağlamak için kist duvarının bütünüyle çıkarılması kritik önem taşımaktadır.

Anahtar kelimeler: Vallecular kist; laryngoscopy; submukozal mikrodiseksiyon; larynx kisti.

INTRODUCTION

Vallecular cysts (VCs) are rare but clinically significant mucus-retention lesions arising between the tongue base and the lingual surface of the epiglottis (1,2). Although uncommon, they account for approximately 5% of benign laryngeal lesions and 10.5–20.1% of all laryngeal cysts (3–5). First described in 1881, VCs have since been recognized across all age groups, from neonates to adults (6).

Clinical presentation varies depending on cyst size. Small lesions are often asymptomatic, whereas larger cysts may cause symptoms due to mass effect, including airway obstruction and dysphagia (7). In some cases, mild or nonspecific symptoms lead to incidental detection during routine or endoscopic laryngeal examination (8–10).

Management of VCs can be challenging due to the limited surgical access of the vallecular region (1). Treatment options range from minimally invasive approaches such as aspiration or marsupialization to definitive surgical excision, with complete removal preferred to reduce recurrence risk (3,6).

CASE

History and clinical findings

A 64-year-old female patient presented to our clinic with a main complaint of a sensation of choking (globus sensation), intermittent hoarseness (dysphonia), and persistent pharyngeal irritation. A detailed medical history revealed that the patient is an active smoker, none alcohol consumption, and reports a positive family history of cancer.

Physical examination and imaging

Physical examination of the oropharynx was unremarkable. However, a flexible or indirect laryngoscopic evaluation revealed a prominent, well-circumscribed cystic lesion measuring approximately 3x2 cm in diameter, arising from the left side of the lingual surface of the epiglottis. For comprehensive preoperative assessment, including the evaluation of the lesion's extent, relationship with adjacent structures, and exclusion of deep infiltration or regional lymphadenopathy, a ComputedTomography (CT) scan of the neck was requested (See Figure 1).

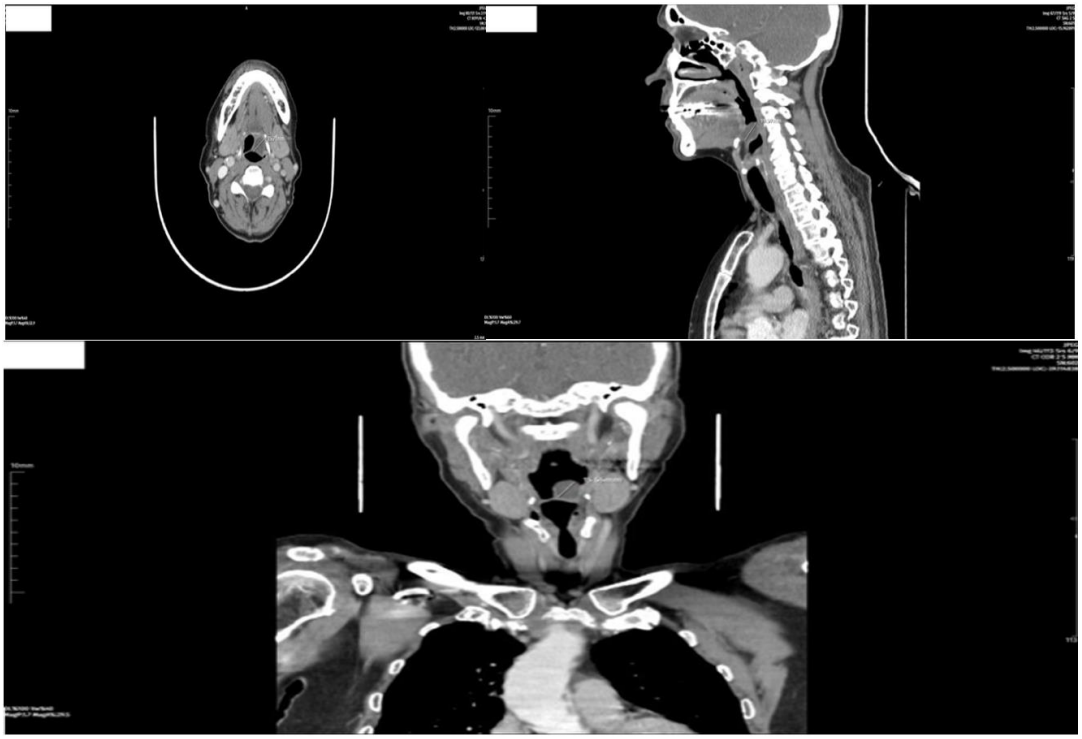

Figure 1: The location and size of the mass are demonstrated from the Axial, Coronal, and Sagittal CT views.

The contrast-enhanced CT confirmed a hypodense mass with cystic density, measuring 17x12 mm, filling the left half of the vallecula, primarily suggesting a cystic pathology. Multiple short-axis lymph nodes not exceeding 1 cm were also noted in the jugular chain (Levels 1, 2, 3), and two millimetric nodules were seen in the left thyroid lobe. (See Figure 1).

Preoperative planning and anesthesia

Laryngoscopy revealed a 2x1 cm cystic lesion on the left lingual epiglottis. Contrast-enhanced CT confirmed a 17x12 mm hypodense mass in the left vallecula, suggesting a cyst. Evaluation also noted millimetric thyroid nodules and sub-centimeter jugular lymph nodes, with no evidence of deep infiltration or significant lymphadenopathy.

Operative technique

Under direct visualization using a surgical microscope, the cystic mass, approximately 3x2 cm in diameter and originating from the vallecula (See Figure 2), was meticulously exposed. The cyst was excised entirely using a submucosal microdissection technique. The objective of the dissection was the total removal of the cyst wall/capsule to minimize the risk of recurrence.

The mass was successfully and completely resected (See Figure 3). Following the removal of the lesion, meticulous hemostasis was achieved, and the operation was concluded.

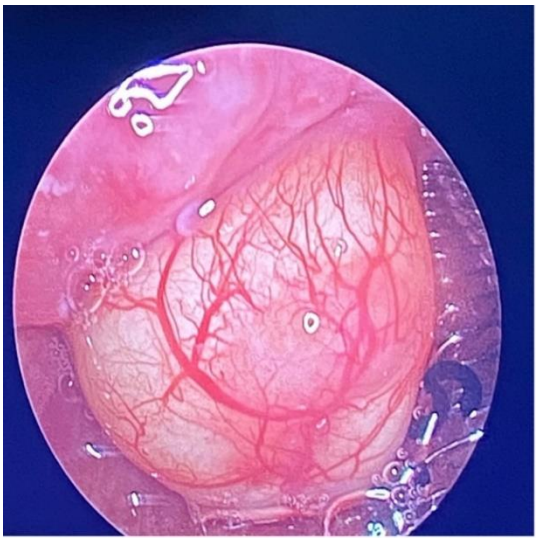

Figure 2: Intraoperative microscopic view demonstrating the well-circumscribed 3 cm vallecular cyst arising from the lingual surface of the epiglottis prior to excision.

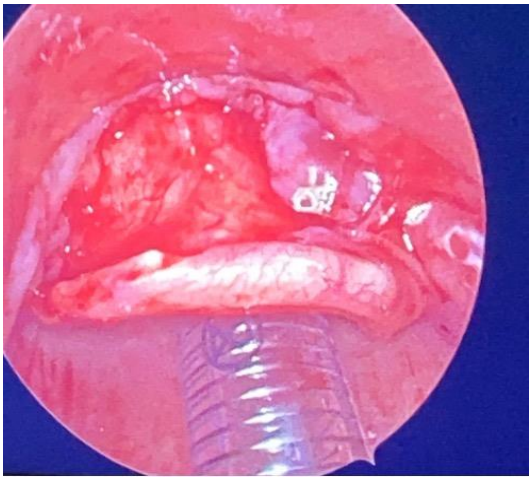

Figure 3: Intraoperative view demonstrating complete excision of the vallecular cyst, with no residual lesion visible after resection.

Figure 4: Post-excisional intraoperative view demonstrating complete removal of the 3×2 cm vallecular cyst, with a clear operative field and no residual lesion noted.

Postoperative findings and recovery

The 3×2 cm vallecular cyst was completely excised (Figure 4) without intraoperative complications. The patient remained hemodynamically stable immediately postoperatively, with an uncomplicated recovery. She was observed in the hospital for one day and subsequently discharged in good general condition. Total cyst removal resulted in immediate resolution of preoperative symptoms, including globus sensation and intermittent dysphonia. Long-term follow-up is planned, consisting of flexible laryngoscopy every three months during the first year and every six months thereafter, to monitor for recurrence, which has been reported in up to 20–22% of cases in the literature.

Pathology report

The excised specimen was a well-circumscribed, 3×2 cm cream-colored cyst containing homo-

genous fluid. Microscopy confirmed a benign laryngeal epithelial (vallecular) cyst lined by stratified squamous epithelium, with no atypia, malignancy, or significant inflammation.

DISCUSSION

VCs are uncommon but clinically significant lesions occurring across all age groups, with symptom severity depending on age, cyst size, and anatomical location. While infants may present with life-threatening respiratory distress or feeding difficulties, adults more often exhibit subtle symptoms such as globus sensation, dysphagia, hoarseness, or sleep-disordered breathing, which can delay diagnosis or result in incidental detection during routine laryngoscopy (1,2,10). Our case illustrates this adult pattern, as a 64-year-old patient presented with dysphonia and globus sensation caused by a large cystic lesion on the lingual surface of the epiglottis.

The narrow and deep anatomy of the vallecula complicates both visualization and surgical access, highlighting the technical challenge of complete excision and the risk of recurrence if the cyst wall is incompletely removed (1). Treatment options include aspiration, marsupialization, and transoral complete excision, with evidence increasingly supporting total removal as the most reliable method to prevent recurrence and airway compromise, especially for large adult cysts (11,12). Given the 3×2 cm size of this lesion and its potential for airway obstruction, transoral submucosal microdissection was chosen to ensure complete excision of the cyst wall and capsule, achieving symptom resolution without early recurrence (Figure 4).

Airway management remains a key perioperative concern, as large VCs can obstruct laryngoscopic view and complicate intubation; temporary aspiration may facilitate airway access but does not provide definitive treatment (13). Recurrence rates of up to 20–22% after surgery underscore the need for meticulous technique and routine postoperative endoscopic monitoring (12). In pediatric cases, additional factors such as laryngomalacia may influence outcomes, necessitating multidisciplinary evaluation (14).

This case reinforces that even markedly large VCs in adults can be safely and effectively managed via complete transoral excision, achieving full symptom resolution. It supports the growing consensus that total removal is the most dependable therapeutic approach and highlights the ongoing need for prospective studies to better define optimal management and long-term outcomes for this rare but clinically impactful pathology.

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